

**REMARKS**

Claims 1-2, 7 and 9 are pending in this application. Claim 1 is in independent form. By this Amendment, claims 1, 7 and 9 are amended. No new matter is added.

**Telephone Interview**

A telephone interview was conducted on September 16, 2008 between Applicants' representative and Examiner Marcheschi. During the interview, proposed claim amendments to further distinguish over the applied references of record were discussed. Specifically, a proposed amendment to claim 1 to recite "wherein a content of the fumed silica is in a range of 20% by weight to 30% by weight based on the total amount of the composition" was discussed. The Examiner indicated that in his opinion the proposed amendment would not distinguish over the applied reference of Tamai due to the disclosure in Tamai of fumed silica at a concentration of 10-38 weight percent.

However, the Examiner did agree that in addition to the current recitation of the bulk density in claim 1, further amending the claim to include a recitation of the coarse particles as described in the specification, and set forth in herein, would likely distinguish over the applied references of record. The Examiner also indicated that were the claims so amended an additional search would likely be necessary.

**Rejections Under 35 U.S.C. §103 – Kaufma/ Tamai**

Claims 1, 2, 7 and 9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of U.S. Patent Publication No. 2002-0033382 to Kaufman and U.S. Patent No. 6,248,144 to Tamai. The rejections are respectfully traversed.

The combination of references, whether considered alone or in combination, fails to disclose or suggest, a semiconductor polishing composition, comprising fumed silica as abrasive grains, the fumed silica having a bulk density of 50 g/L or more and less than 100 g/L, ...and coarse particles of approximately 0.5  $\mu$ m in diameter, the number of coarse particles being less than 140,000/0.5 ml, wherein the alkali aqueous solution contains at least one additive selected from a polishing accelerator, an oxidant, an organic acid, a complexing agent, a corrosion inhibitor and a surfactant, as recited in independent claim 1, as amended.

Kaufman relates to a polishing slurry for mechanical polishing (paragraph [0002]). The slurry includes an abrasive, at least one oxidizer, a complexing agent and a film forming agent. The abrasive may be a metal oxide abrasive, selected from the group including alumina, titania, zirconia, germania, silica, ceria and mixtures thereof (paragraph [0034]). The metal oxide abrasive consists of metal oxide aggregates having a size distribution less than about 1 micron and a mean aggregate diameter less than about 0.4 microns. The metal oxide abrasive may consist of discrete, individual metal oxide particles having a primary particle diameter less than 0.4 microns (400 nm) (paragraphs [0038]-[0039]).

Thus, Kaufman fails to disclose or suggest coarse particles in the slurry of approximately 0.5  $\mu$ m (500 nm) in diameter and that the number of coarse particles is less than 140,000 particles per 0.5 ml. Moreover, Kaufman is silent regarding a slurry having fumed silica with a bulk density of 50 grams per liter or more and less than 100 grams per liter.

Tamai relates to a process for producing a polishing composition suitable for planarization in the production of semiconductor devices (column 1, lines 4-8). The process in Tamai includes using fumed silica having a bulk density of at least 70 grams per liter, that is easily dispersed in water. The fumed silica has an average aggregation particle diameter of from

100 to 180 nanometers (column 3, lines 25-28; column 6, lines 48-50). Thus, as in Kaufman, Tamai also fails to disclose or suggest a polishing composition having coarse particles of approximately 0.5  $\mu\text{m}$  in diameter and the number of coarse particles being less than 140,000 particles per 0.5 ml.

As neither Tamai nor Kaufman, whether considered alone or in combination, disclose or suggest all of the features recited in the rejected claims, as amended, withdrawal of the rejections is respectfully requested.

For at least the reasons stated above related to independent claim 1, Applicant believes this claim to be patentable. Therefore, Applicant respectfully requests that this rejection under 35 U.S.C. §103 be withdrawn.

### **CONCLUSION**

In view of the above remarks and amendments, Applicant respectfully submits that each of the rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Fitzpatrick at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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